

From boatanchors@theporch.com Fri Sep 22 00:34:00 1995  
From: Bill Smith <bilsmith@crl.com>  
Subject: Re: 535 questions  
Message-ID: <Pine.SUN.3.91.950921162013.7890C-100000@crl9.crl.com>

On Thu, 21 Sep 1995, Henry van Cleef wrote:

> As Stan Griffiths said  
> >  
> >  
> > >Do you still recommend WD-40? Last I heard, it absorbed so much  
> > >water from the air that it could cause parts to rust.  
> >  
> > My experiences have still been good with WD-40. I had not heard that it  
> > absorbs water and I have not experienced parts rusting as a result of using  
> > it. Maybe I should deliberately spray some parts and set them aside as an  
> > experiment to see what happens to them.  
> >  
> > I have been told that using WD-40 as a switch cleaner is not a good idea  
> > because a lot of the components of WD-40 evaporate and it loses its  
> > effectiveness as a switch cleaner.  
>  
I understand WD-40 is a water repellant. I used to use it years ago as a  
lubricant/solvent but found it would turn to a sticky glue. That may  
have been due to the material that was already in the set. I know of  
friends who use to to clean potentiometers. I cringe, but he swears by  
WD-40, and has been using it that way for years.  
>  
> The petroleum product I like best for cleaning up mechanical parts is  
> plain ordinary #2 diesel fuel. That stuff melts the old petrified  
> lubricants off something like an SX-28 dial drive mechanism quite  
> nicely, and letting it dry for a few ways leaves it ready to relube.

That reminds me of a story I heard in the days of the model 15 Teletype  
machine.

United Press International was a primary news source in the 60's and every  
radio station in the country (as well as others) had at least one teletype  
machine banging away 24hrs a day in a closet somewhere. Apparently the  
regular PM program was to replace the mechanism every 6mos with a  
refurbished unit.

Refurbishing consisted of bringing the dirty mechanism back to a repair depot,  
removing the signaling coils and motor, and dumping the remainder in a  
50-gallon drum of diesel fuel for 24hrs. Apparently they had several  
drums that would be used successively as washes. The mechanism was then

let alone to dry, was checked for broken or badly worn parts, the motor and coils were reinstalled and a quart of #30 motor oil was poured over the assembly. It was then put back in service to run unattended for another six months!

They were very loud, but had a wonderful, rhythmic sound.

de Bill, AB6MT  
bilsmith@crl.com

From boatanchors@theporch.com Fri Sep 22 18:44:44 1995  
From: n5off@w5ddl.aara.org  
Subject: 75A4 Mint (FWD)  
Message-ID: <184941@w5ddl.aara.org>

Collins 75A-4 Receiver S/N 4,173  
Mint condition, collectors quality.  
Includes matching speaker, 3 filters, reduction tuner,  
and original manual.

Price is \$1,000.00 firm.

Call Ray at 908-859-2613.

Do not reply to this forwarded email. Thanks, de Tom

From boatanchors@theporch.com Fri Sep 22 00:34:00 1995  
From: Fire Bottle archive handler <firebotl@jackatak.theporch.com>  
Subject: A couple milestones we have passed  
Message-ID: <9509212219.aa07177@jackatak.theporch.com>

Gang-

Just a few comments that will put some things into perspective:

Yesterday, the archives (on my system, not the listproc machine) crossed the 20,000 mark! That's right, we now have 20,000 PLUS posts stored in the library here, and soon I hope to find time to bring the 1995 index up to date. These cover the period March 1993 through present... they are also being transferred to the QCWA BBS for more access/availability.

And second, recently we crossed the 600 subscriber mark. When we first moved to theporch.com, there were slightly less than 300 subscribers, and in 9 months we have more than doubled. There are, of course, a few "duplicates" where someone has set up an automated archiver, and has

another subscription to read his/herself... or a duplicate  
subscription because the primary one isn't as reliable (makes ya  
wonder about why the one that works isn't primary, doesn't it? ;^)

Don't mind me, I'm just happy to have everyone here and enjoying the  
list... ;^)

--

73

Jack, W4PPT/Mobile (75M SSB 2-letter WAS #1657/#1789 -- both all mobile! ;^)  
- - - BoatAnchor Mailing List Archiver/Owner - - -  
firebot1@jackatak.theporch.com ---- listown@jackatak.theporch.com

From boatanchors@theporch.com Fri Sep 22 11:23:12 1995  
From: TOM.A.ADAMS@mail.admin.wisc.edu  
Subject: A Download Suggestion  
Message-ID: <F9LN5341.F9LN5352@mail.admin.wisc.edu>

to: boatanchors@theporch.com

Hey Jack,

I've gotta suggestion, let's see what you think of it.

There's one piece of information that I've seen requested time after time  
on the system, so often in fact that it might be worthy of a data file for  
downloading from BOATANCHORS.

The information request is for the data sheets for multimatch modulation  
transformers.

It's my understanding that for most manufacturers ALL of thier multimatch  
jobs in a given series had the same terminal connections for a given impedance  
and only varied in power handling capability. Therefore, one sheet per series  
per manufacturer, typed into an ASCII text file, would do the job.

If anyone out there has such data sheets that s/he'd be willing to xerox  
and mail me, I'll volunteer to type 'em into text files for the system (I may  
come to regret that statement!).

What's your opinion on that idea Jack? Sould BOATANCHORS / LISTPROC be the  
repository for such files?

In any event, has anybody gotta data sheet for a 125 watt Stancor 3800  
series??? I need one! :-)

73's,

Tom, K9TA

From boatanchors@theporch.com Fri Sep 22 11:23:12 1995  
From: Andy Wallace <wallace@mc.com>  
Subject: BA CD?  
Message-ID: <9509220943.AA02599@walnut>

----- Begin Included Message -----

From: Fire Bottle archive handler <firebot1@jackatak.theporch.com>  
Subject: A couple milestones we have passed

Yesterday, the archives (on my system, not the listproc machine) crossed the 20,000 mark! That's right, we now have 20,000 PLUS posts stored in the library here, and soon I hope to find time to bring the 1995 index up to date. These cover the period March 1993 through present... they are also being transferred to the QCWA BBS for more access/availability.

----- End Included Message -----

Jack, and everyone. Would there be enough interest to look at possibly having the BA archives put on a CD-ROM? I saw an Internet ad recently, for some company that could put anything on a CD-ROM for you, no minimum order, for less than \$25 apiece.

I, for one, would be quite happy and willing to pay \$25 for a yearly BA archive, especially if it contained a useful search/display/print toolbox.

And no, <grin> I am not willing to do this myself. But it does sound more or less painless. I do wonder if we could make something like this happen. I have no great desire to see my ramblings be preserved for posterity, but I DO think we are making history here on the BA List. We're keeping alive the hardware and the love which have come out of our past.

--Andy  
wallace@mc.com

P.S. Before anyone asks, I will try to find the ad I mentioned later this weekend. I do have it on file someplace.

From boatanchors@theporch.com Fri Sep 22 11:23:12 1995  
From: Fire Bottle archive handler <firebot1@jackatak.theporch.com>  
Subject: Back on topic, please... ;^)  
Message-ID: <9509220742.aa14850@jackatak.theporch.com>

Gang-

I need some help.... PLEASE!

First, we can certainly endure a few quick comments about something off-topic, like the "Beam Me Up, Scotty"... it will not be the death of the list.

HOWEVER, when posting such a comment, for pete's sake, \*EDIT\* the attributed post down to the relevant stuff! There is \*NO\* need to include address, message-id, headers, .sig blocks, and the full message one is responding to.

Here is the problem. We now have 610 subscribers. Assume an extra line of included text is 65 bytes long. that means just ONE line of extra, unneeded text (and you'd better have a GREAT argument for why it is necessary to include the headers to a message when you just want to say "I agree" ;^) adds about 40K to the mail burden on theporch.com:

$610 * 65 = 39,650$  additional bytes of mail for a single line...

THAT is what difference it makes!

Just as a reminder: Phil runs this list on his personal machine, and because the number of subscribers has doubled, and the daily traffic load has doubled in just the past nine months, we are running FOUR TIMES the mail through his system than when we moved the list.

Phil has had to upgrade his system dramatically, and out of his own pocket. He could use some help, and if you folks want to have the BA List stay the wonderous place it is, you might dig into your pocket and send Phil a contribution to help defray his expenses. He is NOT a ham, nor a subscriber to the list. He runs the list because he is a friend, and because he LOVES to hack Unix when he is not practicing medicine...

Send a voluntary contribution, if you feel the list is of value to you, to:

Phil Porch  
4328 Estes Road  
Nashville, TN 37215-3106

In addition to the RAM and Hard Drive upgrades, Phil is spending about \$200 EACH MONTH for his connection to the net. Help him out in every way we can. Send him a contribution and edit the attributions to not add to the load and force another upgrade in service, which will cost \$500 each month!

THanks for the understanding and the help, gang...

--

73

Jack, W4PPT/Mobile (75M SSB 2-letter WAS #1657/#1789 -- both all mobile! ;^)

- - - BoatAnchor Mailing List Archiver/Owner - - -

firebot1@jackatak.theporch.com ---- listown@jackatak.theporch.com

From boatanchors@theporch.com Fri Sep 22 11:23:12 1995

From: Steve Ellington <n4lq@iglou.com>

Subject: RE: Boiled Linseed Oil

Message-ID: <Pine.SOL.3.91.950922103758.18497A-1000000@iglou>

I this stuff pre-boiled when you buy it or do you have to boil it yourself?  
Dumb question I guess but I've seen linseed oil at the hardware store and don't remember if it was "boiled" or not.

Steve

n4lq@iglou.com

From boatanchors@theporch.com Fri Sep 22 18:44:44 1995

From: Henry van Cleef <vancleef@bga.com>

Subject: Re: Boiled Linseed Oil

Message-ID: <199509221944.0AA21365@zoom.bga.com>

As Steve Ellington said

>

> I this stuff pre-boiled when you buy it or do you have to boil it yourself?

> Dumb question I guess but I've seen linseed oil at the hardware store and

> don't remember if it was "boiled" or not.

>

You buy it "boiled."

One thing to watch out for with linseed oil is that it is a real classic spontaneous combuster. Don't leave oil-soaked rags around. Wash the oil out of them immediately after use.

--

\*\*\*\*\*  
Hank van Cleef vancleef@bga.com vancleef@tmn.com  
\*\*\*\*\*

From boatanchors@theporch.com Fri Sep 22 11:23:12 1995  
From: "Marcotte, T F (T)" <TFMA@chevron.com>  
Subject: Book on P-51 Restoration  
Message-ID: <CPLAN030.TFMA.154819080095265FCPLAN030@ION.CHEVRON.COM>

From: Marcotte, T F (Tom)  
Subject: Book on P-51 Restoration  
From boatanchors@theporch.com Fri Sep 22 00:34:00 1995  
From: Sandra L Knepper <slkst29+@pitt.edu>  
Subject: Re: BUG HA  
Message-ID: <Pine.3.89.9509211859.D18052-0100000@unixs6.cis.pitt.edu>

Wrinkle paint actually absorbs oil and appreciates it. Many years ago,  
many hams used baby oil. I use Krylon clear spray that really makes the  
wrinkle paint glisten. Try it!

Dave, W3BJZ

From boatanchors@theporch.com Fri Sep 22 00:34:00 1995  
From: Sandra L Knepper <slkst29+@pitt.edu>  
Subject: Re: BUG HAIR  
Message-ID: <Pine.3.89.9509211819.A18052-0100000@unixs6.cis.pitt.edu>

The recommended spray for wrinkle paint is Krylon clear spray. I would  
stay away from hairspray since it has an alcohol base and can be rather  
sticky since it may not dry completely.

Dave, W3BJZ

On Thu, 21 Sep 1995, Steve Ellington wrote:

>  
> An article on bug cleaning in the new Sept CQ recommends spraying the  
> wrinkle finish base with hair spray. The author claims it gives a more  
> natural appearance than other methods. Anyone ever try this? What about  
> hair spray on BA rigs? I just washed my bug and can't do anything with it!  
>  
>  
> Steve

> n4lq@iglou.com  
>

From boatanchors@theporch.com Fri Sep 22 11:23:12 1995  
From: Sandra L Knepper <slkst29+@pitt.edu>  
Subject: Re: BUG HAIR  
Message-ID: <Pine.3.89.9509220608.A23020-01000000@unixs3.cis.pitt.edu>

I would refrain from using hairspray on classic radios. Use Krylon spray in clear matte finish or clear coat. Works great in making wrinkle paint glizzen.

Dave, W3BJZ

On Thu, 21 Sep 1995, Steve Ellington wrote:

>  
> An article on bug cleaning in the new Sept CQ recommends spraying the  
> wrinkle finish base with hair spray. The author claims it gives a more  
> natural appearance than other methods. Anyone ever try this? What about  
> hair spray on BA rigs? I just washed my bug and can't do anything with it!  
>  
>  
> Steve  
> n4lq@iglou.com  
>

From boatanchors@theporch.com Fri Sep 22 18:44:44 1995  
From: "Hugh D. Stegman" <driver8@red-eft.la.ca.us>  
Subject: Re: Chicago Whistlers  
Message-ID: <9509221715.AA19898@red-eft.la.ca.us>

Tom sez:

>I can't say that I've ever heard Dawn Chorus tho.

If you have the Web, check out McGreevy's VLF Recordings at:

<http://www-pw.physics.uiowa.edu/mcgreevy/>  
.

There's a whole list of dawn chorus .wav files. They're big, so I recommend lynx and a fast connection. They sound great. You have to listen hard to hear the chorus, but it's there, like 4 or 5 out of sync Leslie speakers with only peaked white noise going through. You think of the ionosphere making that, and you are slightly dizzy.



-hugh

From boatanchors@theporch.com Fri Sep 22 00:34:00 1995  
From: Neal McEwen <nmcewen@metronet.com>  
Subject: Circuit for Landline Morse  
Message-ID: <199509220122.AA16196@metronet.com>

Hello,

I now have my hands on the circuit for dial-up landline Morse that I promised. If you will send me a SASE, I will make you a copy and send it your way. If you are not in any hurry, I will try to scan this thing and make it available on the web.

--

73 de K5RW        - Neal McEwen                                - Richardson, TX (Dallas)  
\*\*\*\*\* I collect old telgraph and wireless telegraph keys \*\*\*\*\*  
HomeNet           - nmcewen@metronet.com                       - OS/2 tcp/ip SLIP  
HomePage           - [http://fohnix.metronet.com/~nmcewen/techno\\_weenies.html](http://fohnix.metronet.com/~nmcewen/techno_weenies.html)

From boatanchors@theporch.com Fri Sep 22 18:44:44 1995  
From: pbock@melpar.esys.com (Paul H. Bock)  
Subject: Cleaning BAs  
Message-ID: <9509221945.AA26617@syseng1.se.melpar.esys.com>

>Crackle finishes? I am no fan of crackle finishes. But the first  
>order of business with an old crackle finish is to clean the thing  
>thoroughly. I have found that straight ammonia and some brushes---I  
>use a toothbrush and and a fingernail scrub brush---will loosen the  
>dirt in the valleys.

I would urge caution. I prefer a much milder cleaner, since I have discovered that preparations such as ammonia, 409, isopropyl alcohol, or any of a myriad variety of other "good cleaners" can have a deleterious effect on some finishes while not adversely impacting others. For example, \*any\* ammonia-based cleaner will dissolve a black japanned finish on an old Vibroplex bug, isopropyl alcohol will quickly remove some types of silk-screened lettering, etc., etc.

Mild dishwashing liquid with no additives, a \*very soft\* toothbrush, lots of running water, and mountains of patience. Sound tedious? You bet! But it can save a lot of grief later on.

Now, if there is an opportunity to \*test\* a certain type of cleaner first, to determine its effects, and the test shows that it isn't damaging to use, then by all means use it - but jumping in feet first without knowing is an ironclad recipe for disaster. Maybe not the first time, or even the second, but sooner or later you'll end up uttering the saddest words ever heard from a would-be BA restorer: "Gee, I didn't think \*THAT\* would happen, all I wanted was to clean it up!"

73,

Paul, K4MSG

From boatanchors@theporch.com Fri Sep 22 18:44:44 1995  
From: Steve Ellington <n4lq@iglou.com>  
Subject: Re: Cleaning BAs  
Message-ID: <Pine.SOL.3.91.950922162829.4517A-100000@iglou>

What a contrast to the information I just got from the usenet. One expert puts his rigs in the xyl's dishwasher for two complete cycles. Another said this is fine but don't use dishwasher detergent due to some abrasive material in it. Instead, use dish washing detergent. We don't want a case of "dishpan anchors"! I responded to this with a few questions.

1. Most dishwashers use maximum hot water. Won't the heat affect the plastic on the radio?
2. What about soap and water under such pressure removing important gear grease i.e. grease inside a jones drive etc.
3. How do we get the H 2 O out of our S-meters?
4. Will water get inside power transformers and never go away.
5. Will the only band that still works be the Marine Band?

After the washing, he recommended 2 days in the oven. Would this dry heat possibly cause crazing of the plastic components?

Steve  
n4lq@iglou.com

From boatanchors@theporch.com Fri Sep 22 18:44:44 1995  
From: pbock@melpar.esys.com (Paul H. Bock)

Subject: Re: Cleaning BAs

Message-ID: <9509222058.AA28387@syseng1.se.melpar.esys.com>

>What a contrast to the information I just got from the usenet. One expert  
>puts his rigs in the xyl's dishwasher for two complete cycles. Another  
>said this is fine but don't use dishwasher detergent due to some abrasive  
>material in it. Instead, use dish washing detergent. We don't want a case  
>of "dishpan anchors"! I responded to this with a few questions.

<SNIP>

Let me just mention that as far back as the 1960s, Tektronix used to clean old 'scopes by immersing them in a \*water-filled" ultrasonic cleaner. After a thorough cleaning by this method (some type of soap was used, possibly; don't remember) the unit was then placed in an oven and dried for several hours (sorry, don't know the temperature). So, the technique is \*VERY\* old.

>1. Most dishwashers use maximum hot water. Won't the heat affect the  
>plastic on the radio?

My dishwasher uses the maximum hot water my water heater can supply, but \*that\* is a function of what my water heater is set to. Mine is set to 125 degrees F; that's plenty hot, and it saves energy.

My wife washes plastic containers of various types (including the "cheapies" which margarine comes in, which I use for saving small parts) in the dishwasher on a routine basis; no ill effects ever noted. Same goes for plastic utensils like scrapers, spatulas (spatulae?), etc.

>2. What about soap and water under such pressure removing important gear  
>grease i.e. grease inside a jones drive etc.

Could be a problem, certainly. Re-lubrication would be in order in any case, I would think.

>3. How do we get the H 2 O out of our S-meters?

Remove the meter first.

>4. Will water get inside power transformers and never go away.

Not if you leave it in a heated oven for about 24 hours, the way Tektronix did.

>5. Will the only band that still works be the Marine Band?

The Marine Band has never worked, it just travels around playing blood-stirring music and looking fancy.....they did name a harmonica after it, though.

>After the washing, he recommended 2 days in the oven. Would this dry heat  
>possibly cause crazing of the plastic components?

Could be. Remember that we use lots more plastic now than they did in 1960, so I would suspect that a trip to a large library and a perusal of electronics trade publications might turn up something on this subject (i.e., washing and baking of electronic equipment). In fact, industrial trade publications might really be the best place to look, or something from the test instrumentation industry.

73,

Paul, K4MSG

From boatanchors@theporch.com Fri Sep 22 18:44:44 1995  
From: Henry van Cleef <vancleef@bga.com>  
Subject: Re: Cleaning BAs  
Message-ID: <199509222209.RAA06993@zoom.bga.com>

As Steve Ellington said

>

> What a contrast to the information I just got from the usenet. One expert  
> puts his rigs in the xyl's dishwasher for two complete cycles. Another  
> said this is fine but don't use dishwasher detergent due to some abrasive  
> material in it. Instead, use dish washing detergent. We don't want a case  
> of "dishpan anchors"! I responded to this with a few questions.

>

Dishwashers, Arggh! I learned the hard way when I put the iron castings for a 1955 Packard power steering pump through the dishwasher. Result: warped castings. Fortunately, I was able to salvage them with some creative effort with a Bridgeport milling machine and a South Bend lathe.

Dishwasher detergent is highly caustic.

The dishwasher in question was Kitchen Aid's 1972 best, which means that it had some features not found on cheap dishwashers. I always wondered why women washed dishes before they put them in a dishwasher. Now that I live in a rental place with a cheap Sears dishwasher, I've found out that there is only one dishwasher: Kitchen Aid.

Many dishwashers use the heater to heat the water in one cycle to near the boiling point. We figured that was what warped the castings.

And many dishwasher, particularly the cheap ones, dry the dishes by turning the same heater back on, which runs the temperatures up to the moon. The Kitchen Aid has a blower, and uses a separate heater, so the temps aren't as high.

I don't let my electronics stuff anywhere near a dishwasher. If a good dishwasher can warp grey iron castings, I certainly don't want my old electronics anywhere near them.

What Tek did with Tek scopes in their repair centers, and what Stan Griffiths recommends in his book may be fine for Tek scopes. Tek wound their own transformers, which meant that they knew what was used as an impregnant. I would not want to put a Thordarson, Stancor, UTC magnetic component in any sort of liquid solution until I heard from them that it was OK.

Radios have things like RF coils, oscillator coils, IF transformers, etc. that may or may not take kindly to either water or heat, much less to both. You can melt a lot of beeswax and strip any coil dope with hot water.

TANSTAAFL. There ain't no such thing as a free lunch. If you want to clean up old electronics, take the time to clean individual areas with things that are safe for those areas, and dismount assemblies that need special cleaning. Detailed disassembly, cleanup, inspection, and rework as necessary turned my RME-45 from an insensitive noisy dog of a radio into a quiet super-sensitive one. It's worth the effort to "do it right" if you've got something worse than dust to deal with.

That disassembly and inspection showed two coils that needed rewinding, a leaky mica padding cap, and allowed me to replace the bypass capacitors, which were inaccessible without disassembly. It also allowed me to clean the crud off the ceramic variable caps, and do some microsurgery on one of the bandswitch wafers, as well as clean off anything left behind by previous efforts with contact cleaners.

The IF's in that set, which I also disassembled, needed the Litzendraht ends restripped and resoldered---they had broken strands (there was half the sensitivity problem).

I can't pin down anything I did in that coil box other than cleanup to the quietness when I put it back together. The difference was dramatic, and it wasn't until I put an audio signal on the AF amp grid that I realized that the audio section was working and I hadn't

miswired anything.

--

\*\*\*\*\*  
Hank van Cleef vancleef@bga.com vancleef@tmn.com  
\*\*\*\*\*

From boatanchors@theporch.com Fri Sep 22 18:44:44 1995  
From: bill@texan.frco.com (William Hawkins)  
Subject: Re: Cleaning BAs  
Message-ID: <9509222213.AA04827@texan.frco.com>

I wouldn't recommend soaking any radio set in water. A sponge bath is much safer. Your mileage may vary, depending on how well the components are protected.

>>4. Will water get inside power transformers and never go away.  
>  
> Not if you leave it in a heated oven for about 24 hours, the  
>way Tektronix did.

This is bad information. It might apply to distilled water, with no possibility of salt in or on the transformer, but many people have water that would leave enough behind after drying to lower the insulation rating of the transformer. See Stan Griffith's book on restoring Tek scopes for the whole story. He lost some transformers to hard water.

Bill Hawkins bill@bvc.frco.com

From boatanchors@theporch.com Fri Sep 22 18:44:44 1995  
From: Bill Smith <bilsmith@crl.com>  
Subject: Re: Cleaning BAs  
Message-ID: <Pine.SUN.3.91.950922154143.12553B-100000@crl11.crl.com>

On Fri, 22 Sep 1995, Henry van Cleef wrote:

> Now that I live in a rental place with a cheap Sears dishwasher, I've  
> found out that there is only one dishwasher: Kitchen Aid.>

Agreed.

> The IF's in that set, which I also disassembled, needed the Litzendraht  
> ends restripped and resoldered---they had broken strands (there was

> half the sensitivity problem).

>

Very interesting! I have an SX-25 that is down in sensitivity by abt 10 db (on the receiver's S-Meter) when compared to an identical model. Of course it seems to be tracable to an IF can that is paculiar to that set (has special windings for the crystal filter). I have taken the IF can apart, but all looked well inside. As a matter of fact, seems I also measured coil resistance and, comparing to a working set, found the primary with a lower resistance. Guess that doesn't speak of broken strands, but do you know of any remedy short of finding a replacement IF transformer?

de Bill, AB6MT  
bilsmith@crl.com

From boatanchors@theporch.com Fri Sep 22 18:44:44 1995  
From: Bill Smith <bilsmith@crl.com>  
Subject: Re: Cleaning BAs  
Message-ID: <Pine.SUN.3.91.950922151921.12553A-100000@crl111.crl.com>

On Fri, 22 Sep 1995, Paul H. Bock wrote:

<lots of snips>

> >4. Will water get inside power transformers and never go away.  
> Not if you leave it in a heated oven for about 24 hours, the  
> way Tektronix did.  
>

I have cleaned several old GE Pre-Progress mobile trancievers by putting them though a dishwasher cycle. Works great, but I recommend removing any transformers with metal-shielded sides first. I have blown quite a few before I learned the lesson.

Also.. leave the unit alone in a warm dry place for at least 7 days before applying power, else you run the risk of loosing a transformer (presuming you let one ride through the dishwasher cycle).

I tried the oven cycle, but I believe that all that happens is warm moist air is simply forced deeper into the windings. There is no way that moisture can easily escape the inside of a typical metal encased transformer in a few hours. After one was lost, I opened it up and it was dripping wet inside. Hermetically sealed transformers weather the storm much better of course.

Good luck. A dishwasher really can clean up a set. It will knock off

the paper around an electrolytic, and will remove some markings. I'd hate to put any plastic through this process, though. The heater coils in a dishwasher are active during the wash cycles, and increase the temperature of hot water by quite a bit (superheated, near boiling?). The drying cycle raises the temperature of the equipment to the point where I know I can't hold on to it.

All this is from experiences 30 years ago. Maybe new dishwashers work differently, but I'd had to see a BA lost. Try a simple set first.

de Bill, AB6MT  
bilsmith@crl.com

From boatanchors@theporch.com Fri Sep 22 00:34:00 1995  
From: Johnson\_Dan@AAC.COM  
Subject: Cleaning fluids (was re: 535 questions)  
Message-ID: <9509220621.22640.ab@SMROUTER.AAC.COM>

Content-Type: text/plain; charset=US-ASCII

Hank van Cleef said:

> The petroleum product I like best for cleaning up mechanical parts  
> is plain ordinary #2 diesel fuel. That stuff melts the old  
> petrified lubricants off something like an SX-28 dial drive  
> mechanism quite nicely, and letting it dry for a few ways leaves it  
> ready to relube...

Maybe this is the same principle, but on a tip from a camera repair book, I recently flooded a camera shutter mechanism with lighter fluid ("contains naphtha"), and it cleaned out everything but the metal without apparent residue. Lighter fluid also seems to be a good "carrier" to work very fine graphite powder into the nooks and crannies of purely mechanical assemblies. The book warns of contact with non-metal (plastic) components.

Would lighter fluid be a good de-gunking alternative to the diesel fuel in BAs? It's certainly convenient, and you get a fine jet applicator for your \$1.25. Are there BA components other than plastics which these substances discolor or damage? How like plastic is bakelite in this respect?

(Did we have a thread on this topic earlier this year? Maybe I should search the archives instead of asking blindly.)

Zulu uniform tango bang de KC4EWT  
Johnson\_Dan@aac.com



From boatanchors@theporch.com Fri Sep 22 00:34:00 1995  
From: Sandra L Knepper <slkst29+@pitt.edu>  
Subject: COLLINS  
Message-ID: <Pine.3.89.9509211821.B18052-0100000@unixs6.cis.pitt.edu>

I am still looking for any Collins literature, especially older sales literature. Also would like to buy any Collins microphones and speakers. I am planning on replicating older sales literature for Collins enthusiasts. Stay tuned!  
And as always thank you for your support.  
Dave, W3BJZ

From boatanchors@theporch.com Fri Sep 22 18:44:44 1995  
From: n5off@w5ddl.aara.org  
Subject: COSMOS Patent 3,098,989  
Message-ID: <184938@w5ddl.aara.org>

See subject.

I'd be willing to wager that the Patent bulletin (bound versions in your nearest university library) describes the COSMOS compensating mechanism.

Whoever looks this up, please post the results.

Thanks,

Tom

From boatanchors@theporch.com Fri Sep 22 00:34:00 1995  
From: jmartin@hrlban1.aircrew.asu.edu  
Subject: Dalton McCrary message  
Message-ID: <SA39+zZQMka@hrlban1.alhra.af.mil>

To Dalton McCrary N4OYS, via boatanchors:  
I've been trying to contact you via message on the side, with no success. Perhaps something about your address got corrupted in my computer. I have you as dmccrar@a553ca.orn.usace.army.mil  
I am interested, so please contact me again if/when you read this.  
73, John Martin  
jmartin@hrlban1.aircrew.asu.edu

From boatanchors@theporch.com Fri Sep 22 00:34:00 1995  
From: TOM.A.ADAMS@mail.admin.wisc.edu

Subject: Diode Noise Generators

Message-ID: <F9LM0328.F9LM0340@mail.admin.wisc.edu>

to: boatanchors@theporch.com

Hello Barry, WA4VZQ.

I'm replying to your note via the list rather than directly because it may be of interest to some of the other BA crew.

You ask about the noise generator I used in the panadaptor alignment. No, I don't use one of those fancy critters with the controlled temp tube; I'd like to get hold of a couple of those tubes to build a nice, precise noise source, but I've never even SEEN one!

What I'm using here is a homebrewed critter that uses a 1N21 crystal, six volts worth of penlite cells, a 0-2 MADC meter movement, and a 10K pot. The basic circuit is in the Bill Orr RADIO HANDBOOK (practically any edition from about 1955 on), back in the test equipment section.

I jazzed the device up a little bit by using some stray coax plumbing I had lying around; instead of an improvised mounting for the diode, I used a C-band mixer mount (type N input, type BNC output). That, combined with a few hunks of common type N and type BNC hardware made a very neat, rugged package.

I would STRONGLY recommend that anyone doing RF work of any sort at least look over this simple gadget. I find it to be indispensable in receiver alignment, especially on VHF.

To increase usefulness on HF, I added a 2 stage resistance coupled amplifier to increase the noise output.

This thing is handier and easier to use than a signal generator for quick alignment jobs. Combined with my RF impedance bridge and a receiver, it is a powerful tool for antenna and RF network design and adjustment.

The only limitation (and this is pointed out in texts that describe similar instruments) is that the simple diode noise generator CANNOT be used for absolute noise figure measurement of receiver front ends, at least not too conveniently. There is considerable variation of noise voltage output vs. crystal current as frequency is varied. Noise vs. current also changes as the batteries discharge and their internal resistance varies.

Still, as a relative comparison device for A / B measurements, as well as a broadband signal source, these gizmos can't be beat; they're dirt cheap to build and easy to use.

BTW, I've seen a couple of articles on so-called gated noise sources. These

things are essentially diode noise generators that are switched on and off at an audio rate. I haven't tried 'em, but I'd imagine that a broadband RF signal in the form of an audio tone could be even more useful than one in the form of a white noise hiss.

73's,

Tom, K9TA

From boatanchors@theporch.com Fri Sep 22 00:34:00 1995  
From: "Robert M. Bratcher Jr." <bratcher@krypton.netropolis.net>  
Subject: Re: Erect-tronic set wanted!  
Message-ID: <199509211511.PAA07986@krypton.netropolis.net>

At 11:07 AM 9/21/95 CDT, you wrote:

>I had a regular Electronics set that my folkks gave me for my 11th or 12th B-day.

>Yes it used a 1T4 mini battery pentode. Mine used a 45 or maybe 67.5V B-battery

>and the D-cell holder with the built-on switch.

>

>It had a BC band coil and a SW coil, plug a tickler coil that you slid into  
>the top of either coil for regen. Since that didn't give you much control  
>over the coupling, most of the RX setups used a pot in the screen voltage.

>

>I remember getting local BC stations but don't recall whether I got much on SW.  
>This was before the Religious Right was making the ionosphere glow at nite :-)

>

>Anyway I really enjoyed that set and got a lot of use out of it, and was  
>still using parts of it thru high school. That D cell holder ...

>gotta go to lunch, finish later. --mike k w9nrd

>

I had fun with the one I found too! Which is why I wish I could find another complete one for my BA collection. I used that tickler coil too but never thought of a pot in the screen lead. I may be wrong about my set having 2 tubes. Of course I'm 36 now and the middle 70's was a long time ago! I used that D cell battery holder too plus two 9 volt shaped 22.5 volt batteries in series for my 45 volts. Of course the 1T4 can handle 90 volts on the plate but I never thought about trying that. Got a lot of stations on AM BCB. Not too many on shortwave. My Hammurand HQ140 did a lot better. Like you I ignore the religious stations. Way too many of them now!

Robert M. Bratcher Jr.  
E-mail to:  
bratcher@netropolis.net  
Beam me up Scotty!

From boatanchors@theporch.com Fri Sep 22 00:34:00 1995  
From: Michael.J.Knudsen@att.com  
Subject: Re: Erect-tronic set wanted!  
Message-ID: <9509212228.AA05045@bock.ih.att.com>

Condsidering I had my Erect-tronics in mid -50s, and yours int he 70s, that series had long legs! Gilbert may have had a deal whereby you could order extra parts, like extra tube sockets. By the '70s those 1-volt tubes might have become hard to buy at the local drugstore, since portable radios went sandy by early 60s.

HQ140? Heck, an S-38 or AR-3 or eeven an Ocean Hopper wuda beat out that setup. But I wish I had one now to prototype and experiment with.

One difference between the home hobby kit and my industrial-strenght setup -- the industrial version's Masonite perfboard was coated with a conductive paint or the like, to give a good ground plane. It also guarangeed you got healthy shocks when you rested your hand on it and touched a plate pin. I was using regular 6-VAC tubes in that with 150-250VDC on the plates -- kids, don't try this at home.

Speaking of which -- anyone survive the Progressive Edu-Kit? That was my 12th or 13th B-day gift, after the Erectronics. Ac/DC metal chassis, and asbestos resistance line cord to run up to 3 octal tubes in series. Real wiring and soldering.

Amazing we didn't all die form AC/DC radios. I never had a real "explosion" until my last graduate school. 73, mike k

PS: Religious broadcasters are a boon to anyone trying SW xtal sets. But they are a pain to any "modern" RX with a preselector.

From boatanchors@theporch.com Fri Sep 22 11:23:12 1995  
From: Michael.J.Knudsen@att.com  
Subject: Re: Erect-tronic set wanted!  
Message-ID: <9509212005.AA04930@bock.ih.att.com>

...the D-cell holder ended up running the filament of a 1B3 in some, er, exciting later projects.

When I did grad school at MIT, at Eli Heffron's famous surplus shop I got and Industrial Grade Erectronics set, probably used in a technical school. Big clamshell oak case with drawers full of components just like the ones in the little home sets. Plus a built-in Variac and line AC voltmeter, and a mercury-vapor rectifier (not clear how you could use

up all that power). I nearly flunked out of school from breadboarding 6-tube balanced modulators and other experiments with that set.

I lateer donated it to a tech school, but not till after schlepping the whole thing to Pittsburgh. Wish I had it now. 73, mike k w9nrd

From boatanchors@theporch.com Fri Sep 22 11:23:12 1995  
From: "Robert M. Bratcher Jr." <bratcher@krypton.netropolis.net>  
Subject: Re: Erect-tronic set wanted!  
Message-ID: <199509220022.AAA19966@krypton.netropolis.net>

At 05:28 PM 9/21/95 CDT, you wrote:

>Condsidering I had my Erect-tronics in mid -50s, and yours int he 70s,  
>that series had long legs! Gilbert may have had a deal whereby you could order  
>extra parts, like extra tube sockets. By the '70s those 1-volt tubes  
>might have become hard to buy at the local drugstore, since portable radios  
>went sandy by early 60s.

>

>HQ140? Heck, an S-38 or AR-3 or eeven an Ocean Hopper wuda beat  
>out that setup. But I wish I had one now to prototype and experiment with.

>

>One difference between the home hobby kit and my industrial-strenght setup --  
>the industrial version's Masonite perfboard was coated with a conductive  
>paint or the like, to give a good ground plane. It also guarangeed you got  
>healthy shocks when you rested your hand on it and touched a plate pin.  
>I was using regular 6-VAC tubes in that with 150-250VDC on the plates --  
>kids, don't try this at home.

>

>Speaking of which -- anyone survive the Progressive Edu-Kit? That was my 12th  
>or 13th B-day gift, after the Electronics. Ac/DC metal chassis, and asbestos  
>resistance line cord to run up to 3 octal tubes in series. Real wiring and  
soldering.

>Amazing we didn't all die form AC/DC radios. I never had a real "explosion"  
>until my last graduate school. 73, mike k

>

>PS: Religious broadcasters are a boon to anyone trying SW xtal sets.

>But they are a pain to any "modern" RX with a preselector.

>

I found my Erect-tronics set at a garage sale. The HQ-140 was a good set for it's time. Beats the pants off any of my S-38 series radio's! But the HW-180C is MUCH better! As to the religious stations, I'm a Christian but I don't care to listen to them ALL the time. Theres a lot more inteesting stuff on SW.

Robert M. Bratcher Jr.  
E-mail to:  
bratcher@netropolis.net

Beam me up Scotty!

From boatanchors@theporch.com Fri Sep 22 18:44:44 1995  
From: Henry van Cleef <vancleef@bga.com>  
Subject: Flat clear lacquer  
Message-ID: <199509221850.NAA15470@zoom.bga.com>

As Sandra L Knepper said

>  
> One last word on using Krylon spray (clear matte), one of the best  
> restorers of Collins 75A-4's and one who I would take his word to the  
> bank is Howard Mills, W3HM. Howard has restored many Collins radios  
> over the years and does a superb job. He uses the clear matte  
> Krylon on everyone of his customer's radios. If it is good enough for  
> Howard it is good enough for me. I use this technique too, and it works  
> wonderfully. Enough said. Dave, W3BJZ.

>  
> On Thu, 21 Sep 1995, Randy Cole  
> wrote:

>  
> > Anyway, I certainly wouldn't recommend Krylon. Or hair spray either,  
> > for that matter, but at least the hair spray can be washed off fairly  
> > well. My opinion is that if you can do the job with something that  
> > is absorbed, then why put a coating of something on it that could  
> > crack, peel or yellow years down the road.  
> >

I thought I was the one who had discovered the merits of flat lacquer in restoration. I don't use "Krylon," but regular lacquer, both clear (gloss) and flat, for various things. My old house originally had brass switch and outlet plates, and there was a spare time project of cleaning them off, polishing them, and relacquering them with gloss lacquer to protect the shine. I had to redo a few of the high usage switch plates in the 25 years I owned the place.

Tek scope front panels were matte aluminum, with the markings etched in them, then sprayed with flat lacquer. You can re-matte the aluminum with an acid etch sold for aircraft refinishing, although I think a quick dunk in a lye tank (just long enough to dull the surface---lye will gobble up aluminum) will work, too. You can strip the whole panel with paint stripper, do your metal work, refill the etched markings (I use artist's acrylic because you can clean off the work with water if you work quickly), then spray the whole thing with flat lacquer. New panel, le voila! Make sure it is one of the older etched panels---Tek started silk-screening the things in the late sixties.

I tried the flat lacquer trick when restoring a Meissner Signal

Shifter chassis. The plating was so-so, plenty of blemishes, which I polished out with an old (worn) Scotch-Brite pad. For frills, once the chassis was clean, I used some rub-off lettering (get at a drafting supply place) to mark the tube sockets and trimmer caps, and put captions on the rear panel connectors (this is a "modification"---Meissner didn't make the thing originally), then sprayed the outer surfaces with clear lacquer. Results were superb. Of course, this was with a bare chassis---no components on it.

Crackle finishes? I am no fan of crackle finishes. But the first order of business with an old crackle finish is to clean the thing thoroughly. I have found that straight ammonia and some brushes---I use a toothbrush and a fingernail scrub brush---will loosen the dirt in the valleys. My S-36A, which sat in a barn for years, looked like a disaster after just washing the surface of the case. Half an hour in the sink with ammonia and brushes, rinsed it off, and it looks like new. 3M adhesive cleaner and some work with a toothbrush will take a lot of scuff marks off a Tek scope side panels and rails, as well as taking off any masking tape or similar adhesive residue.

Industrial design was not a strong point among the electronics designers of thirties and forties. Loewy had his shot at the Hallicrafters "standards" when he pushed them to do the S-42, but I would like to have seen what someone like Brooks Stevens would have done with the HRO. While I'm not going to play color games with an HRO, I've got a later Ballantine VTVM that needs its case and bezel stripped and repainted. It was originally black crackle, but it isn't going to get refinished in either black or crackle.

So far as overspraying old paint finishes with some sort of coating, the gimmick is to get the old surface in a condition that the new coating will adhere to. Getting it absolutely clean (which means removing all the stuff like baby oil that people have put on it over the years) is the first order of business. A quick wash with lacquer thinner afterward, followed by spray-on of the clear top coat will probably work. You might consider using automotive "top coat," which is intended to give a gloss finish.

--

\*\*\*\*\*  
Hank van Cleef vancleef@bga.com vancleef@tmn.com  
\*\*\*\*\*

From boatanchors@theporch.com Fri Sep 22 00:34:00 1995  
From: "Terry O'Laughlin" <OLAUGHLIN@vilas.uwex.edu>  
Subject: free ARRL books

Message-ID: <MAILQUEUE-101.950921165642.448@vilas.uwex.edu>

I have the following ARRL books free for the postage (\$3.00 for the EZ post office envelope)

1959 License Manual (volume 42)

1960 How to become a Radio Amateur (volume 19)

1960 License Manual (volume 45)

I've been hanging onto them because of the ads in the back, but I've been hanging onto too much stuff for even more bizarre reasons. That's why I fit in with all you guys.

73 Terry O' WB9GVB

From boatanchors@theporch.com Fri Sep 22 11:23:12 1995

From: Sheldon Wheaton <swheaton@tyrell.net>

Subject: Re: FT-171 crystals

Message-ID: <Pine.SUN.3.91.950921230702.7871C-100000@tyrell.net>

On Wed, 20 Sep 1995 jmartin@hrlban1.aircrew.asu.edu wrote:

> Did the TCS-13 transmitter use FT-171 crystals? If so, does anyone know if  
> Fair Radio carries them? I have a mint TCS sans crystals.

> 73, John Martin

> jmartin@hrlban1.aircrew.asu.edu

>

The correct Navy designations for the TCS crystals are as follows:

COL 40068 rcvr xtal holder

CHF 40130 tx xtal holder

These are marked "for TCS". Might be other possible numbers, and most likely other manufacturers.

These are about the size of an FT-171, but a little closer to a square shape when viewed from "above". They have 3 pins on the base, and one of the two (I believe the transmit) has a flat on one pin, possibly to prevent accidental use of a receive crystal. I believe the XTAL freq. is generally doubled in the TX.

73,

Sheldon KC0CW

swheaton@tyrell.net

<http://www.tyrell.net/~swheaton>



From boatanchors@theporch.com Fri Sep 22 00:34:00 1995  
From: wlfuqu00@service1.uky.edu (Bill Fuqua)  
Subject: Have Globe Chief 90A manual  
Message-ID: <199509212044.QAA05646@service1.uky.edu>

Anyone need a Globe Chief 90A manual?

I've got an old one ( not marked up too badly). Just let me know.

73

Bill ko4ww

From boatanchors@theporch.com Fri Sep 22 11:23:12 1995  
From: Stan Skelton <sskelton@cln.etc.bc.ca>  
Subject: Help needed with CMOS Superkeyr III  
Message-ID: <Pine.3.89.9509220747.A27923-01000000@sparky>

Help, my CMOS Superkeyer III is acting up.....

Well, I finally got it finished and stuffed into the case.  
I inspected every solder point with an 8 power lens to make sure  
there were no solder overflows, and that every resistor was in  
the right place....and every pin was well and truly joined....

Power was applied and VOILA, one continuous tone!....Not good!

Reset the two chips to make sure contact was good on all pins,  
connected the power and VOILA, the OK <dahdahdah dahditdah> came  
out of the speaker (at about 50 wpm) then after a second or so,  
the dreaded continuous tone.....

When it is giving out it's continuous tone, you can key the paddles  
and hear the dits and dahs, so things seem to be operating ok at the  
chip level, it seems like something is set up wrong in whatever portion  
of the circuit that controls the tone generation....

Anyone who has built it (or the superkeyer II) have any ideas???

73's Stan....VE7SKT

From boatanchors@theporch.com Fri Sep 22 18:44:44 1995  
From: Bill Smith <bilsmith@crl.com>  
Subject: Re: Help needed with CMOS Superkeyr III  
Message-ID: <Pine.SUN.3.91.950922113254.19121A-100000@crl7.crl.com>

On Fri, 22 Sep 1995, Stan Skelton wrote:

> Help, my CMOS Superkeyer III is acting up..... <snip> the dreaded  
> continuous tone.....  
>  
> When it is giving out it's continuous tone, you can key the paddles  
> and hear the dits and dahs, so things seem to be operating ok at the  
> chip level, it seems like something is set up wrong in whatever portion  
> of the circuit that controls the tone generation...

Stan, I wonder if you have tried cleaning the board with denatured alcohol? Pour a little direct from a bottle directly on the foil side of the board, and swish it around with a toothbrush. Then take a paper towel, lay it on the board, and brush the toothbrush over the towel lightly so that circuit pins are pressed into the towel. The towel will soak up dissolved resin and residue. You will likely have to do this several times.

I have "repaired" several old circuits this way. There wasn't anything electrically wrong, but unintended circuit paths were apparently set up through the crud left on the board. You might also re-examine the board for solder splashes, etc. after you clean the board.

BTW, Denatured alcohol is a cumulative poison and attacks the eyes, so keep away from it!

73 de Bill, AB6MT  
bilsmith@crl.com

From boatanchors@theporch.com Fri Sep 22 18:44:44 1995  
From: John=J.=Martin%HTI%HUGHES@hrlban1.aircrew.asu.edu  
Subject: Homebrew QRP rig designs  
Message-ID: <SA39+,MjMka@hrlban1.alhra.af.mil>

BA'ites,  
While going through old magazines last night I came across two QRP designs that may be of interest. Electronics Illustrated, Vol 11 No 2, March 1968, gives a bare-bones one-tube 50C5 xtal-controlled circuit for 80 & 40 meters, built on an open board (they suggest an orange crate end). Tie

points are finishing nails. The filament is powered through a heavy dropping resistor, and B+ comes from a doubler running straight off 117 vac, so no transformer. Coils are wound on plastic pill bottles, a tuning indicator is a small neon lamp held against the coil... you get the idea. This one could be built in a few hours. The 2nd design is in Radio-TV Experimenter, April-May 1965, for a one-tube 5 watt 6AW8A (triode-pentode combination) xtal rig for 160, 80, 40, 20, or 15 meters. Its a conventional design with transformer, plate current metered, in a metal box, etc; less 'spartan' than the 50C5 rig. Personally, I think the 50C5 design is more interesting, just for what one could get out of so little. Contact me on the side for more info on these if you're interested.

BTW, I remember Radio-TV Experimenter had an issue around '64-65 that told how to convert an old round-screen black & white TV into a color set using a rotating color filter wheel and associated circuitry. Does anyone happen to have a copy of that issue? I'm looking for it. Thanks.

73, John Martin  
jmartin@hrlban1.aircrew.asu.edu

From boatanchors@theporch.com Fri Sep 22 18:44:44 1995  
From: Steve Ellington <n4lq@iglou.com>  
Subject: Re: Homebrew QRP rig designs  
Message-ID: <Pine.SOL.3.91.950922144037.10272A-1000000@iglou>

My first transmitter was made from an article in Popular electronics somewhere around 1963-64. It was called "The Scrounger" and consisted of a 6V6 on a pie pan. I'd sure like to see that again. I can't even remember what I used for a power supply but probably an old tv transformer. Dad knew a tv repairman and he gave me all the old chassis I could handle.

Steve  
n4lq@iglou.com

From boatanchors@theporch.com Fri Sep 22 00:34:00 1995  
From: HAMRLUND@aol.com  
Subject: Items to Trade For ???  
Message-ID: <950921183744\_105396775@emout05.mail.aol.com>

The following is a list of items I want to TRADE off...if you see anything below...what do you have to trade....  
at the end is a list of some things i'm looking for..but  
you never know with me...don't assume, tell me what you have.

KENT - MOORE  
high impedance DMM J-29125

RCA  
Voltohmist WV-77E  
CESCO  
Reflectometer..75ohm standing wave..New in Box....

VARIAC - MILITARY  
have a model PN-13B power control panel. It has on the face: 1 indicator  
light, 1 on/off toggle, (1) 0-300 vac meter, and the steeringwheel type  
handle (with lock) to a 9 Amp variac.  
this thing came out of a BC-640-B, transmitter. its heavy.  
panel dimensions are : rack style, 19" W x 9" T.  
it will handle 117 / 220 VAC, as designed.

the following Ten-tec & Ameco are New Old Stock  
TEN-TEC 2/ 1150 SURGE PROTECTORS  
1/ 241 CRYSTAL OSCILLATOR  
1/ 679 keyer (internal) for Century 22

1/

AC-2 monitor for Power Mite Series

AMECO: 1/ PS-1 POWER SUPPLY  
2/ PS-2 POWER SUPPLY  
1/ CLB CONVERTER

MFJ - 300 watt dummy load

Hammarlund HFM-30 2M xceiver

OHM-SPUN 1500 WATT AM BROADCAST DUMMY LOAD  
HAS MULTI-TAPS FOR LOADING

THE FOLLOWING EIMAC ITEMS ARE NEW OLD STOCK  
EIMAC - HEAT DISSIPATING CONNECTOR'S  
1 / HR-1  
6 / HR-2  
1 / HR-3  
2 / HR-5  
1 / HR-6  
4 / HR-7

\*\*\*\*\* END \*\*\*\*\*

\*\*\*\*\*  
\*\*\*\*\*

CONTACT: Robert Fowle.....Hamrlund@aol.com

Ph.517-789-6721.....

1215 Winifred....Jackson, Mich. 49202-1946

    |    |  
---|---|---> the Hammarlund guy  
    |    |

\*\*\*\*\*

\*\*\*\*\*

I'm looking for anything by HAMMARLUND:

literature -----> spec sheets, sales flyers, sales catalogs  
parts -----> new & used, old dealer inventories, parts units  
equipment -----> dead or alive  
accessories ----> speakers, clocks, xtals, xtal boxes, anything  
files -----> from: factory, service stations, authorized dealers  
manuals -----> factory or military

From boatanchors@theporch.com Fri Sep 22 11:23:12 1995  
From: KS0F@aol.com  
Subject: J-45  
Message-ID: <950922115448\_26400449@emout06.mail.aol.com>

Greetings All,

Anyone got a loose J-45 knee strap key set. I am in need of  
one and Fair is out of them. It's for another ham friend.

73 de KS0F Mike  
KS0F@AOL.COM

From boatanchors@theporch.com Fri Sep 22 11:23:12 1995  
From: "James C. Owen, III" <owen@apollo.eeel.nist.gov>  
Subject: RE: JW Miller Coils  
Message-ID: <30047.owen@apollo.eeel.nist.gov>

In message Thu, 21 Sep 1995 11:59:54 -0500 (CDT),  
dsnowden@ccd.harris.com (Doug Snowden) writes:

Anybody know where I can get JW Miller parts? Is there someone with a stock? I need slug tuned inductors

>  
J.W. Miller Division /Bell Industries  
19070 Reyes Ave  
P.O.Box 5825  
Rancho Dominguez, CA 90224  
1-310-515-1720

Ask for Catalog's. 73 Jim K4CGY  
James C. Owen, III  
National Institute of Standards & Technology (NIST)  
Bldg 225/B360  
Gaithersburg, MD 20899  
1-301-975-5623

From boatanchors@theporch.com Fri Sep 22 11:23:12 1995  
From: rowlands@magma.com (Mike Rowlands)  
Subject: Mailing List  
Message-ID: <v01530500ac888e6d26bb@[204.191.36.130]>

I would like to subscribe to the Boatanchors mailing list. Will you please tell me how to go about it?

73

Mike - VA3MR/G3NKR

From boatanchors@theporch.com Fri Sep 22 00:34:00 1995  
From: N4HUR@aol.com  
Subject: NATIONAL PW DIAL  
Message-ID: <950921182438\_105384926@emout06.mail.aol.com>

DOES ANYONE HAVE ANY SECRETS ON HOW TO MAKE THESE DIALS OPERATE SMOOTHLY. I HAVE TWO AND BOTH ARE FAIRLY SMOOTH BUT EXHIBIT A SMALL AMOUNT OF JERKYNESSE. THE COMPONENTS ARE ALL IN GOOD CONDITION, AND THE CASES ARE FULL OF AXLE GREASE. I BELIEVE THAT THE PROBLEM IS WITH THE THRUST WASHER FOR THE WORM GEAR SEEMS LIKE THE SPRING WINDS UP UNTILL IT DEVELOPS ENOUGH TORQUE TO BREAK THE THRUST WASHER LOOSE AND THE THING JUMPS FORWARD A SMALL AMOUNT. ANYONE HAVE ANY EXPERIENCE?

BOB N4HUR@AOL.COM

From boatanchors@theporch.com Fri Sep 22 11:23:12 1995  
From: Richard.Herndon@382-29-3.ima.infomail.com (Richard Herndon)  
Subject: New Internet address [unknown]  
Message-ID: <6af\_9509212025@ima.infomail.com>

All (specially Jack):

I've had my email address changed (unbeknownst to me). I just got word from an in-town ham who corresponds with me that my mail is bouncing. If you can get the internet address from this piece of mail, please change my old subscription from rherndon@infomail.com to the new one. I'll be trying to find out what it is by sending mail to my work, but that may take some time, as I don't have a direct connection, nor am I at work. :-(

Thanks,

Richard Herndon K5FNI

--- GoldED 2.40

--

|Fidonet: Richard Herndon 1:382/29.3

|Internet: Richard.Herndon@382-29-3.ima.infomail.com

|

| Standard disclaimer: The views of this user are strictly his own.

From boatanchors@theporch.com Fri Sep 22 11:23:12 1995  
From: John=J.=Martin%HTI%HUGHES@hrlban1.aircrew.asu.edu  
Subject: Noise Generator Tube  
Message-ID: <SA39+FigMka@hrlban1.alhra.af.mil>

Ref:

>One noise generator tube is the 5722 put out by Sylvania, and  
>is listed in their 1953 tube book.

=====

I believe I have one of these. At least, I know it's a noise generator tube, although it isn't at hand so I can't verify the number. Mine looks like a small fluorescent tube about a foot long, only transparent. I don't need or want it, and if someone else does, it's yours for the cost of shipping.

73, John Martin

jmartin@hrlban1.aircrew.asu.edu

From boatanchors@theporch.com Fri Sep 22 11:23:12 1995  
From: Philip Gwyinne McCoy <dgnova@eng.umd.edu>

Subject: Noise generator tubes  
Message-ID: <199509221143.HAA00641@cappuccino.eng.umd.edu>

From: Philip McCoy

>Subject: Diode Noise Generators

> You ask about the noise generator I used in the panadaptor alignment. No, I  
>don't use one of those fancy critters with the controlled temp tube; I'd like  
>to get hold of a couple of those tubes to build a nice, precise noise source,  
>but I've never even SEEN one!

One noise generator tube is the 5722 put out by Sylvania, and  
is listed in their 1953 tube book

From boatanchors@theporch.com Fri Sep 22 11:23:12 1995  
From: tcv@genrad.com (Thomas C Vales)  
Subject: Noise Tube  
Message-ID: <9509221614.AA16046@pulsar.genrad.com>

This is for John Martin in regards to the noise tube he posted today.  
John: For some reason I cannot access you using your e-mail address.  
I am interested in the above mentioned noise tube.  
My e-mail address is tcv@genrad.com

Thanks,  
Tom Vales N1MWE

From boatanchors@theporch.com Fri Sep 22 18:44:44 1995  
From: owens@stout.atd.ucar.edu (Chip Owens)  
Subject: Octal socket test adaptor  
Message-ID: <199509222026.OAA01105@atd.atd.ucar.EDU>

Anybody have a test adaptor available for octal tubes  
that they would be willing to sell? This is the gadget  
you plug into a tube socket and then plug the tube into  
the top of it. It allows you to make measurements on the  
tube pins from the top of the chassis with the tube operating.

Anyway, if you have one to sell. please let me know...

Thanks,  
Chip Owens, NW00



owens@stout.atd.ucar.edu

From boatanchors@theporch.com Fri Sep 22 11:23:12 1995  
From: "Robert M. Bratcher Jr." <bratcher@krypton.netropolis.net>  
Subject: Oh I loved this!  
Message-ID: <199509220151.BAA20975@krypton.netropolis.net>

>  
>Date: Thu, 21 Sep 1995 23:41:22 -0400 (EDT)  
>From: Filip Gieszczykiewicz <filip@alpha.smi.med.pitt.edu>  
>To: boatanchors@theporch.com  
>Subject: Re: What is this resister? (fwd)  
>Message-ID: <Pine.SUN.3.90.950921234003.14145A-1000000@alpha.smi.med.pitt.edu>  
>  
>  
>>>Beam me up Scotty!  
>>  
>>Can't right now Captun, the systems in overload & the whole  
>>ships gonna blow.... Please try your Call later.....  
>  
>Very funny, Scotty... Now beam down my clothes...  
>  
What a RIOT! I really laughed at this answer. And Hamrlnds too.  
Round up the usual suspects! (From Casablanca)

Robert M. Bratcher Jr.  
E-mail to:  
bratcher@netropolis.net  
Beam me up Scotty!  
(I'm a real Star Trek fan)

From boatanchors@theporch.com Fri Sep 22 18:44:44 1995  
From: Grant Youngman <gyoungma@gtetel.com>  
Subject: Panel Refinishing  
Message-ID: <Chameleon.950922175537.gyoungma@gyoungma.gtetel.com>

Received my freshly refinished SP600 panel via UPS today. The refinishing was done by Ron Eisenbrey (AB5WG) in Sugarland, TX.

All I can say is that it is ABSOLUTELEY STUNNINGLY gorgeous. Perfect, flawless, first class work. This is your basic plug -- Ron does professional quality work.

I set the panel up against the freshly refinished cabinet and have been just

sitting here staring at it, marvelling at how that "grungy old radio" (quoting my wife) is going to be a real live make-'em-enviuous eye-popper when its all back together. Even my wife was impressed with the overall result -- and that's the highest compliment the work can get, considering her general attitude of totally ignoring all the radio stuff :-). At least as good (and probably better) looking than the day it walked out of the Hammarlund plant 'lo those many years ago.

Grant/NQ5T

-----  
Grant Youngman -- NQ5T

Once upon a time (and maybe again): K5VCM  
and for a while W0JXE, KH6HHC, WB4BBD

gyoungma@gtetel.com  
-----

From boatanchors@theporch.com Fri Sep 22 11:23:12 1995  
From: Grant Youngman <gyoungma@gtetel.com>  
Subject: Powder Coating Results  
Message-ID: <Chameleon.950922082352.grant@nq5t.gtetel.com>

Folks ...

Several of you inquired about the powder coat establishment I found in Dallas.

The results on the sp600 cabinet were outstanding. A beautiful wrinkle finish close enough to the original color to be virtually indistinguishable. The grain of the wrinkle is very fine. The original cabinet had a non-wrinkle finish on the inside, but to avoid the increased price of masking, two painting passes, etc, I had the entire thing done with the single finish. Anyway, it looks (as Tony the Tiger sould say) GR-R-R-R-eat.

As a benchmark -- the total price, including sandblasting (which he subs out) and painting was \$65.00 plus tax. Color used on the cabinet was Grey Mist (Mist Grey?). I think I'm going to let him undo the Hammerite job I did on a Globe King cabinet, and put a nice grey powder coat on there ....

The establishment is Ace Powder Coating at 214/487-0567. Can't tell you if he's really set up to handle shipping outbound -- I should have asked, but, alas, forgot to. Also don't know if he can color match to a non-stock color.

Now I just hope the panel shows up in the next couple of days from Ron

Eisenbrey. I'm salivating to get that receiver put back together and on to the operating desk ...

Regards .. Grant/NQ5T

-----  
Grant Youngman  
gyoungma@gtetel.com  
-----

From boatanchors@theporch.com Fri Sep 22 11:23:12 1995  
From: Steve Ellington <n4lq@iglou.com>  
Subject: Re: Powder Coating Results  
Message-ID: <Pine.SOL.3.91.950922102847.15142B-100000@iglou>

Tnx for the info on powder coating. This lead me to the yellow pages where I found several places that do sandblasting and painting on small items ie motorcycle parts etc. I tried using paint remover on my R4A's cabinet and man what a mess :\*( I thought I would never finish! Then there were those 10,000 holes..... Finally, I sprayed it black and I wasn't very pleased with my final result. Maybe next time I'll try a professional.

Steve  
n4lq@iglou.com

From boatanchors@theporch.com Fri Sep 22 18:44:44 1995  
From: Sandra L Knepper <slkst29+@pitt.edu>  
Subject: Re: Powder Coating Results  
Message-ID: <Pine.3.89.9509221606.C20375-0100000@unixs5.cis.pitt.edu>

We should all learn our lesson hat we need to go to the professionals. I can imagine what a mess you had with paint remover. I did the same thing to a Collins S-line cabinet. Dave, W3BJZ

On Fri, 22 Sep 1995, Steve Ellington wrote:

> Tnx for the info on powder coating. This lead me to the yellow pages  
> where I found several places that do sandblasting and painting on small  
> items ie motorcycle parts etc. I tried using paint remover on my R4A's  
> cabinet and man what a mess :\*( I thought I would never finish! Then  
> there were those 10,000 holes..... Finally, I sprayed it black and I  
> wasn't very pleased with my final result. Maybe next time I'll try a

> professional.  
>  
> Steve  
> n4lq@iglou.com  
>

From boatanchors@theporch.com Fri Sep 22 18:44:44 1995  
From: bill@texan.frco.com (William Hawkins)  
Subject: Re: Powder Coating Results  
Message-ID: <9509222157.AA04813@texan.frco.com>

What kind of powder did you choose? An ad in the Yellow Pages offers four different kinds.

Bill Hawkins bill@bvc.frco.com

From boatanchors@theporch.com Fri Sep 22 11:23:12 1995  
From: shaun.merrigan@freddy.com (SHAUN MERRIGAN)  
Subject: Re: R-390/Mil contractors  
Message-ID: <8B183F2.0004023A11.uuout@freddy.com>

On 09/21/95, S MILLER spoke about Re: R-390/Mil contractors; I say:

SM>~#FROM :smiller#motown.ge.com  
SM>~@N UMSGID :<199509211557.LAA04599#bear.MOTOWN.GE.COM>  
SM>~@N

hz

SM>point to the freq I am interested in it works ok. I thought I had  
SM>read in ER that COSMOS had used a trim screw arrangement that  
SM>changed the padding capacitance in order to linearize the PTO. I'd  
SM>would think it might be a very beneficial to compare notes on these  
PTO'

Steve:

Well, you said it. This IS getting interesting. I just took apart the Cosmos PTO I had, in order to confirm what I had said before. I was incorrect: this particular unit has an externally adjustable "end point" shaft , as we find on other PTO's (see below). It has something else as well: an externally accessible linearizing adjustment. (BTW, this also explains why this particular PTO has no linear compensation stack).

Description of what I found: there is an adjustment coil,, with a

slotted core slug which is adjustable via the rear of the PTO thru a hole in the rear support plate. The innermost shielding can has no hole to access the slug, but the second can does. The coil itself is straightforward enough BUT has the added feature of a spring loaded slug. So the slug moves when you turn it (normal enough) but is also free to move against the spring pressure. On the end of the slug where the adjustment shaft (the one that we turn on other PTO's to adjust the endpoint) normally would be, there is a plastic or nylon rubbing block, which is biased against a round spring steel plate. This spring steel plate in turn has a protrusion that is biased against another plate which has a total of 60 or so small adjusting screws (there is a plastic ring on one side of this plate that acts like a huge common lockwasher, so the setscrews won't move once they are adjusted). I am sure you can see where this is going: the ring of tiny setscrews bear against the spring steel plate which bears against the rubbing block. This allows the adjustment slug to move slightly (we are talking about 1/32" max). So that takes care of the compensation stack.

I think I was wrong yesterday about there not being an external endpoint adjustment. What Cosmos did is MOVE the hole for the endpoint slug over so it is tucked in behind Z-702, I found the hole and the mounting spot for the adjusting shaft, but the component itself is missing. So I don't know if it was a capacitor or a coil. You may correct when you said it was a capacitor.

So we have established that: Cosmos PTO's do have an endpoint adjustment, they also have a unique compensation stack adjustment which is accessible from the outside of the PTO. This raises the possibility that one could do an endpoint/linearizing adjustment without having to remove the PTO shielding cans. Anybody tried it??

Want to send me you Cosmos PTOs and I'll try it????

Shaun

Shaun P. Merrigan  
merrigan@nyquist.ee.ualberta.ca  
shaun.merrigan@freddy.com  
3rd Year EE University of Alberta

, CMPQwk 1.42 856 ,For people who like peace and quiet: a phoneless cord.

From boatanchors@theporch.com Fri Sep 22 11:23:12 1995  
From: "Marcotte, T F (T)" <TFMA@chevron.com>  
Subject: R-390A Contracts Wanted

Message-ID: <CPLAN030.TFMA.053356080095265FCPLAN030@ION.CHEVRON.COM>

From: Marcotte, T F (Tom)  
Subject: R-390A Contracts Wanted  
From boatanchors@theporch.com Fri Sep 22 11:23:12 1995  
From: BILL088@aol.com  
Subject: RE:R-392 Knob pointers--hot?  
Message-ID: <950922075057\_105889038@emout05.mail.aol.com>

The R-392 knobs were supposed at one time to "glow" in the dark, maybe because this was used as a portable unit out in the field at night.....

When I bought my R-392 the seller said "BTW willie, I have a set of new and improved knobs to go with your set, these are brand new and will not make you sick, HA HA HA"

When the R-392 arrived I found a bag of new knobs. The white stripe was smooth white paint not the coarse white specks on the originals. Since the original knobs were grubby I replaced them with the new ones. I tried to get the original knobs to "glow" by shining a bright light on them but they seemed spent. The original knobs were given to a friend who needed them for his R-392.

So good luck,

Bill, AC4LC

From boatanchors@theporch.com Fri Sep 22 18:44:44 1995  
From: KS0F@aol.com  
Subject: R390A Capehart  
Message-ID: <950922122441\_26418329@mail06.mail.aol.com>

Greetings All,

I have had for some time a "project" radio picked up at a fest that is still waiting to be looked at. It is complete and partially works. I don't know if all the modules are the same or not but the contract is by Capehart.

After having read with great interest all the postings on the 390's and 390A's there are obviously several on the list who know a thing or two about these rx's to say the least.

Any comments about the units produced by the Capehart outfit? Good or bad etc.. I hope to get into this rx one of these days soon. I have a beautiful TM manual and all the stuff from ER on

these but have no real experience with them. Just wanting to know if these were ok or not.

73 de KS0F Mike  
KS0F@AOL.COM

P.S. What's the BTU rating on a Johnson T-R switch? About 150K?  
I am thinking about using 2 as the primary source of heat here this winter. (Ya know what ah mean Vern?)

From boatanchors@theporch.com Fri Sep 22 18:44:44 1995  
From: joe.selkregg@amail.amdahl.com  
Subject: RE: R390A PTOs:Who made them.  
Message-ID: <m0swFje-0000DeC@juts.ccc.amdahl.com>

I am in the middle of aligning an R390a made by EAC. It came with a COSMOS PTO. It has an external endpoint adjustment and the external linearity adjustment with all the little screws that go by as you tune the unit (about one per 90 deg. of rotation). There is also another adjustable coil inside the unit that is in series with the end point coil to give more range. There is a warning sticker on the inner cover warning about the 15 lb. charge of dry nitrogen (of course mine had outgassed). This unit took a lot of tweaking to get the end point adjustment correct and it still needs the linearly adjustments to get it spot on.

I also have a PTO sitting on the bench made by Progressitron Corp. I checked it and it seems to be spot on as it is and it seems to be more stable than the Cosmos unit. The Progressitron unit uses the metal stack inside for the linearly adjustments and has a single endpoint adjustment. I may swap this in place of the Cosmos unit.

Joe Selkregg

From boatanchors@theporch.com Fri Sep 22 18:44:44 1995  
From: "S. Miller" <smiller@motown.ge.com>  
Subject: R390A-PTO's: Who made them  
Message-ID: <199509221641.MAA05707@bear.MOTOWN.GE.COM>

This actually a continuation of a thread that has been on here for the last couple of days but I ahve retitled it since the earlier posts were titled with R390/mil cont..  
What I'd like to know is who made the PTO's and what is the opinion over how well they work. All PTO's for the 390 were not apparently equal. I have a 390A with a PTO from a company in Burlington NJ (Mike, I'm not sure that that is the company you named) and it's ok in terms of stability and cal between 100Khz points but certainly could be better from end to end.

There is a lot of talk about the COSMOS PTO's and I have a Fair Radio Gov't Reconditioned one of these with a very High serial number and a travel tag that indicates mods were installed. I also have earlier COSMOS PTO's but I have not gotten all the way inside. I think it would be helpful for all to share notes on these PTO's as apparently there are the good, the bad and the drifty out there. So, now that you have looked at the tag to see who made the receiver take a peek underneath and look at the lable on the PTO.  
Steve Kd2Ed

From boatanchors@theporch.com Fri Sep 22 00:34:00 1995  
From: cole@loretta.la.ca.us (Randy Cole)  
Subject: Restoring Wrinkle Paint  
Message-ID: <9509220356.AA12576@loretta.la.ca.us>

There was a thread about this here in BA some time ago. I recommended my favorite, namely boiled linseed oil. I paint it on, leave it for a while, and wipe it off. It restores the gloss and is absorbed into the paint, softening it a tiny bit and hopefully making it less likely to chip or peel. Another BA reader tried it on a wrinkle finish cabinet along with WD-40 as a comparison. He claimed that it was more effective.

Anyway, I certainly wouldn't recommend Krylon. Or hair spray either, for that matter, but at least the hair spray can be washed off fairly well. My opinion is that if you can do the job with something that is absorbed, then why put a coating of something on it that could crack, peel or yellow years down the road.

73,  
Randy Cole

From boatanchors@theporch.com Fri Sep 22 11:23:12 1995  
From: Sandra L Knepper <slkst29+@pitt.edu>  
Subject: Re: Restoring Wrinkle Paint  
Message-ID: <Pine.3.89.9509220651.C23020-0100000@unixs3.cis.pitt.edu>

One last word on using Krylon spray (clear matte), one of the best restorers of Collins 75A-4's and one who I would take his word to the bank is Howard Mills, W3HM. Howard has restored many Collins radios over the years and does a superb job. He uses the clear matte Krylon on everyone of his customer's radios. If it is good enough for Howard it is good enough for me. I use this technique too, and it works wonderfully. Enough said. Dave, W3BJZ.



On Thu, 21 Sep 1995, Randy Cole  
wrote:

> There was a thread about this here in BA some time ago. I recommended  
> my favorite, namely boiled linseed oil. I paint it on, leave it for a  
> while, and wipe it off. It restores the gloss and is absorbed into the  
> paint, softening it a tiny bit and hopefully making it less likely to  
> chip or peel. Another BA reader tried it on a wrinkle finish cabinet  
> along with WD-40 as a comparison. He claimed that it was more  
> effective.  
>  
> Anyway, I certainly wouldn't recommend Krylon. Or hair spray either,  
> for that matter, but at least the hair spray can be washed off fairly  
> well. My opinion is that if you can do the job with something that  
> is absorbed, then why put a coating of something on it that could  
> crack, peel or yellow years down the road.  
>  
> 73,  
> Randy Cole

From boatanchors@theporch.com Fri Sep 22 18:44:44 1995  
From: GALBRAITH CHRISTOPHER <99galbra@lab.cc.wmich.edu>  
Subject: Scope opinions sought!  
Message-ID: <Pine.3.89.9509221644.A11584-0100000@grog>

Howdy troops,  
I've decided it's time to get a scope. Many 'projects' are approaching  
with the cold winter nights--a scope would sure be handy for trouble  
shooting, measurements, etc...

I'm a student on a budget, so I'd like to find something under  
\$150--again, just a starter scope (my first).

So far, I'm considering the solid state (ugh--I know) version of the OS-8  
Fair sells for around \$120. I've also seen portable Tek scopes go for  
around the same price. I wouldn't mind (at all) a Tek 545, except  
shipping is a problem, as is the space and weight.

So basically, anything that's cheap, good quality, and comparatively  
simple to figure out is what I'm looking for.

Any suggestions on what to look for in features, models, etc.. would be  
appreciated. Likewise, if any of y'all have one 'on the block' I'm  
interested! So far I've heard good stuff about Tektronix, so that's  
primarily what I'd be interested in.

Thanks for any help!  
73, Chris KA8WFC

From boatanchors@theporch.com Fri Sep 22 18:44:44 1995  
From: zoom@willow.sps.mot.com (Chris Terwilliger)  
Subject: SW-54 chrome?  
Message-ID: <9509222241.AA05555@willow.sps.mot.com>

Walt asked me this question and not knowing the answer, I thought I'd refer it to the group. Has anyone ever seen a National SW-54 with a chrome case? He says he saw one, but doesn't know if it was original or not...

tnx  
Chris, AA7WD  
zoom@willow.sps.mot.com

From boatanchors@theporch.com Fri Sep 22 18:44:44 1995  
From: Henry van Cleef <vancleef@bga.com>  
Subject: Tek scope fans  
Message-ID: <199509222140.QAA03738@zoom.bga.com>

I had occasion to remove the fan assembly from a Tek 545 so that I could get at the power supply relay chassis, and it occurred to me that taking that motor apart might be worth the effort, because it had plenty of end play, even though it works fine.

Getting the fan off was the first great exercise. A small punch and some judicious tapping, and it came off, .001 at a time. A little use of 320 sandpaper cleaned the rust off the shaft, so that I could get the rest of the thing apart.

In short, a disaster in the making. The fan end thrust arrangement had completely vanished. I found a few pieces of it in the coil wire that runs below that end. The armature had been rubbing on the bearing block, which had machined some nice grooves in it. We used to joke about Tek scope fans having enough thrust to power an ultralight airplane, and it looks as though that end gets more thrust than the original arrangement could handle for a long time.

After cleaning everything up, I swapped the rear and front bearing pillow blocks. That puts the oil holes on the sweep side, but you can still get to them by removing the air deflector. I had some AN960 light steel flatwashers, and found some brass jobs the same size, so made up my own thrust bearing for that end. Also added one to the rear

to make up for the wear on the old bearing sleeve. Greased the whole business with lubriplate and put it all back together, checking that I had "a little" (around .020) end play, and that the armature was centered in the stator end-to-end. I don't know how well this will work, but the motor is silky smooth right now, and I'll see what happens when I run it for a while.

--

\*\*\*\*\*  
Hank van Cleef vancleef@bga.com vancleef@tmn.com  
\*\*\*\*\*

From boatanchors@theporch.com Fri Sep 22 18:44:44 1995  
From: CASchwark@aol.com  
Subject: Re: Tek scopes and parts  
Message-ID: <950920082347\_104080161@emout06.mail.aol.com>

In a message dated 95-09-20 04:36:04 EDT, you write:

>I've noticed that the trace is a little fuzzy as it goes off the right  
>side of the screen, ie focus goes off just a little.

Sounds like the ASTIGMATISM circuitry may need tweaking or repair....

Chuck Schwark, Chicago, IL  
Antique Radio Club of Illinois (Elgin)

From boatanchors@theporch.com Fri Sep 22 00:34:00 1995  
From: Dave Horsfall <dave@esi.COM.AU>  
Subject: Re: the dangers of three prong plugs  
Message-ID: <Pine.SUN.3.91.950922132100.24714J-100000@eram.esi.com.au>

On Tue, 5 Sep 1995, Chuck Hawley wrote:

> Well, all the stuff made to plug into them where the  
> cord comes out downward, or something with lights on  
> it like a surge protector, expect the gnd to be on the  
> bottom.

Sure is that way in most civilised parts of the world - if the plug is partially falling out, the power is the first to be disconnected, and the earth/ground the last...

--

Dave Horsfall (VK2KFU) | dave@esi.com.au | VK2KFU @ VK2DAA.NSW.AUS.OC | PGP 2.6

Opinions expressed are mine. | D8 15 71 F9 26 C8 63 40 5E 63 5C 65 FC A0 22 99

From boatanchors@theporch.com Fri Sep 22 00:34:00 1995  
From: wier@bobcat.etsu.edu (Bob Wier)  
Subject: TTY (was: 535 questions)  
Message-ID: <9509220354.AA22824@bobcat.etsu.edu>

rtty machines post deleted...

|  
|They were very loud, but had a wonderful, rhythmic sound.  
|  
|de Bill, AB6MT  
|bilsmith@crl.com

Yeah - I recall for years whenever a movie or something was supposed to be set in a newroom, you'd invariably get the sound of a tty in the background cranking away (sometime with bells!).

When I was running my Model 19, it had a very distinctive smell of hot lubricant and ozone from the TD and relays :-)

THANKS & 73 de WB5KXh

----- Round Up the Usual Disclaimers! -----  
Bob Wier, keeper of the Photo-3D, Icom radio (WB5KXH),  
Overland Trails, and Motorola HC11 mailing lists  
wier@bobcat.etsu.edu

"Kentucky women are possessed of strong stomachs. It is not considered an insult to invite them to take a drink."  
- Silverton Standard May 19th, 1901

From boatanchors@theporch.com Fri Sep 22 11:23:12 1995  
From: howellh@acad.winthrop.edu  
Subject: TTYs - The Final Days  
Message-ID: <95092205520708@acad.winthrop.edu>

WINTHROP UNIVERSITY

Electronic Mail Message

Date: 22-Sep-1995 05:41am EDT  
From: Haney Howell  
HOWELLH  
Dept: Mass Communication  
Tel No: 323-4534

TO: Remote Addressee ( \_smtp%"boatanchors@theporch.com" )

Subject: TTYs - The Final Days

By the mid-70s, the wire services were shifting to dot matrix printers for news operations. However, large newsrooms, such as the networks in New York, needed multiple copies of every wire. When I was at ABC radio (75-78), we had a bank of TTY machines along the wall. One of the major contract points during that time was making the company enclose those dozen machines. Even in the 80s, CBS News had a room full of printers, and we loyal hams scrounged around at hamfest for replacement units and bits and pieces. When a bunch of copies were needed from the wires, the old rolls with a half-dozen carbons made sense. Only the arrival of the terminal and remote printer sent the TTYs to BA land.

A footnote. When UPI went to computers in Hong Kong around 1973, they brought the new newsroom up to speed, then moved the staff down the hall from the old one. One of the old warhorses had complained that he couldn't rewrite news without the music of the TTYs. One his first day in the new newsroom, he sat down in his chair, broke out a tape deck with a recording of the TTY noise from the old operation and went to work!

And, yeah, we were still using film at the network!

Haney Howell no2n howellh@winthrop.edu

=====

From boatanchors@theporch.com Fri Sep 22 11:23:12 1995  
From: Andy Wallace <wallace@mc.com>  
Subject: Tube Glow, better'n hot chocolate  
Message-ID: <9509220918.AA02576@walnut>

----- Begin Included Message -----

From: KS0F@aol.com  
Subject: WX

P.S. Can't decide which glows best, HQ-110, HQ-150, SP-600,  
NC-300, 2B, 75S3 etc. etc. etc. Life is good.

----- End Included Message -----

I'd vote for the 2-B. No tube shields, and that perforated cabinet shines on the ceiling quite well. Plus you have that cheery white dial. And if you're lucky enough to have the 2-BQ Q-multiplier speaker, you can even see a 'bottle glowing from the front.

--Andy  
wallace@mc.com

From boatanchors@theporch.com Fri Sep 22 00:34:00 1995  
From: Michael.J.Knudsen@att.com  
Subject: Re: WD-40  
Message-ID: <9509211855.AA04874@bock.ih.att.com>

My personal experience with WD-40, backed up by what others have said on this List in the past, is that it is a good cleaner and initial lube for freeing up jammed parts and gooey old hardened oil/grease.

But it is not a permanent, long-term lubricant.  
After using it, I apply some real oil, like motor oil or 3-in-1.

WD-40 dries up after a week or so, leaving your parts at the mercy of friction and wear again. That's probalby why that clock repairman was said to charge extra to fix clocks that had been "Wet Dogged." 73, mike k w9nrd

From boatanchors@theporch.com Fri Sep 22 00:34:00 1995  
From: Fire Bottle archive handler <firebotl@jackatak.theporch.com>  
Subject: Re: WD-40  
Message-ID: <9509212237.aa07475@jackatak.theporch.com>

"Paul H. Bock" <pbock@melpar.esys.com> said:

> As I understand it, WD-40 was developed (possibly for NASA)  
> as a \*water displacement\* lubricant; in fact, I read that the  
> "WD" in the name actually stands for "Water Displacement" and the  
> "40" was the fortieth formulation that the inventor tried, and  
> the one which worked the best. Hence the name WD-40.

> Can't prove it, though.....  
Don't have to.... You are correct! (That stuff is \*NOT\* \*NOT\* a lubricant, and was not designed to be... it just happens to be slippery as hell when you spray tower leg joints and hence the undeserved reputation among the uninformed that it is a lube... it isn't!

--

73

Jack, W4PPT/Mobile (75M SSB 2-letter WAS #1657/#1789 -- both all mobile! ;^)  
- - - BoatAnchor Mailing List Archiver/Owner - - -  
firebot1@jackatak.theporch.com ---- listown@jackatak.theporch.com

From boatanchors@theporch.com Fri Sep 22 00:34:00 1995  
From: Filip Gieszczykiewicz <filip@alpha.smi.med.pitt.edu>  
Subject: Re: WD-40 (fwd)  
Message-ID: <Pine.SUN.3.90.950921163417.12579A-100000@alpha.smi.med.pitt.edu>

Greetings. Perhaps you can prove it...

----- Forwarded message -----  
From: Paul H. Bock <pbock@melpar.esys.com>  
Subject: Re: WD-40

> My experiences have still been good with WD-40. I had not heard that it  
> absorbs water and I have not experienced parts rusting as a result of using  
> it. Maybe I should deliberately spray some parts and set them aside as an  
> experiment to see what happens to them.

As I understand it, WD-40 was developed (possibly for NASA)  
as a \*water displacement\* lubricant; in fact, I read that the  
"WD" in the name actually stands for "Water Displacement" and the  
"40" was the fortieth formulation that the inventor tried, and  
the one which worked the best. Hence the name WD-40.

Can't prove it, though.....  
----- Forwarded message -----

Here's a little something on WD-40 that I have on my WWW  
server... feel free to blast holes in it :-)

-----  
4) WHAT'S ALL THIS HOOPLA ABOUT WD-40

(From the Editor)

WD-40 is a commonly available "all purpose protector" spray. Some  
people swear by it while others swear because of it. The reason for  
this is that WD-40 is believed by the general population to be a good  
lubricant which it is not. WD-40 is a "protector" in the sense that it  
coats the item it is applied to and displaces water. Some have hinted  
that its very name, WD-40 stands for "Water Displacement - formula 40"  
which would indeed explain a lot of the collective observations.

That is not to say that WD-40 has no good qualities. It does. It does leave a very thin film of some oil which does keep the water out and hence decreases oxidation of the metal's surface (called "rust"). The problem is that part of its formula is solvents which tend to really mess up the grease that is already applied. If that grease is critical to the items' operation, WD-40 may indeed speed up its demise.

The moral? Simple. WD-40 is good in some application while in others it may cause deterioration or ensure an early death. So, apply wisely!

(From Lee Pedlow)

The folks who sprayed anything into a rotary or linear potentiometer put me through college. The solvents (vehicle) in WD-40, as well as tuner cleaner (1,1,1 TCE), freon, TFE or even carbon tetrachloride, remove the grease from within the device, which speeds up the demise of thick film resistor, the heart of the unit. The morons who did this most often were "experienced" recording engineers, techs, roadies and soundmen. They were also the ones who bitched the loudest when they had scratchy pots in their equipment. I've fired more techs than I can remember for that practice. In fact, I now use it for an interview question. Replace the pot and you'll have a return customer for life! When I was on the road, in an extreme bind (talent on stage or the like), I would use a spray called "Blue Foam" for the emergency. This stuff left a grease similar to the original goo in the pot. As soon as the equipment was available, in went a new pot. Because of this, I always kept an assortment of all the pots in my equipment in my support kit.

(From Lee Pedlow)

1. ALL petroleum based lubricants are "persistent" to some degree depending on the lubricant's volatility, that is how they work. The better the lubricant, the lower the volatility.
2. If logic won't suffice, how about a quote from Paige M. Perdue, Marketing Manager of the WD-40 Company , San Diego, CA? This excerpt is from a letter to the editor published in the August,1994 "AOPA PILOT" magazine (page 24):

"It is true that WD-40's carrier does evaporate, like all carriers, but it deposits inhibitors that penetrate into the grain areas of metal surfaces, removing existing moisture and providing a protective film against corrosion. In fact, WD-40 was originally developed to prevent corrosion on Atlas missiles and has many applications for all types of aircraft." "... It acts as a lubricant, penetrant, corrosion preventative, moisture displacer



and cleaner."

3. I guess the oily "goo" left behind after its use is an "artifact" of something else? One learns in metallurgy that the only way to prevent surface oxidation of metal (rust) is to provide a barrier to air at the metal's surface. Typically one uses a grease or oil compound. WD-40 is one of them!
4. If anyone uses a WD-40 type product in the mechanism of my firm's VCRs, CD players, DATs, Optical Disc units, etc. they not only void the consumer's warranty, they get to find a new line to service! This is due to both the out-gassing properties and the oily film deposited on all surfaces in the machine, since the vapor cannot be effectively controlled.

(From Michael Covington)

I've had pretty good results with "Tri-Flow," which leaves a thin film of micron-size Teflon particles. As you note, WD-40 doesn't leave a persistent lubricant, and of course tuner cleaner is a degreaser.

-----

So, feel free to point out any glaring errors but I believe this to be correct.

Take care.

From boatanchors@theporch.com Fri Sep 22 00:34:00 1995  
From: Steve Ellington <n41q@iglou.com>  
Subject: Re: WD-40 VS HAIR SPRAY  
Message-ID: <Pine.SOL.3.91.950921165305.25407A-100000@iglou>

The article in sept cq mag. was written by Dave Ingram. Again, he recommended using hair spray on wrinkle finsh bug surfaces, not the contacts. Now somehow the thread topic is now WD-40. WD-40 is great stuff but it stinks. Yes, it smells bad and furthmore, I don't relish the idea of spraying oil on paint. Someone told me that all WD-40 is, is kerosene.

So, tonight, I shall raid the xyl's cabinet and try some hair spray on something. Perhaps a dab on my HQ-129. I only hope this doesn't amount to hairisey! :\*)

> >> >Do you still recommend WD-40? Last I heard, it absorbed so much  
> >> >water from the air that it could cause parts to rust.  
> >>  
> > As I understand it, WD-40 was developed (possibly for NASA)  
> >as a \*water displacement\* lubricant; in fact, I read that the  
> >"WD" in the name actually stands for "Water Displacement" and the  
> >"40" was the fortieth formulation that the inventor tried, and  
> >the one which worked the best. Hence the name WD-40.  
>  
> I believe both of you are right. The folk lore in aviation for the name is as  
> described above. Also, because of the water absorbtion, many mechanics  
> strongly disapprove of WD-40 on anything on an airplane (or BA, or anything  
> else you are trying to preserve). A product that has a good reputation for  
> retarding corrosion, cleaning contacts, and as a penetrating lubricant is  
> ACF-50 from a company in Texas. You can get it in a spray can like WD-40 and  
> it goes on in the same way, but it doesn't have the water absorbtion  
> properties that make WD-40 a bad choice as a preservative.  
>  
> The down side of ACF-50 is that it is messy and stays on the part a long time.  
> It will attract dust to some extent, so I only use it sparingly. It works very  
> well as a lubricant for tight switches, door handles, throttle cables, etc,  
> and will eventually evaporate after a long time.  
>  
> A problem airplanes and boatanchors often suffer from is filiform corrosion.  
> That's the white powdery stuff you see on an aluminum part that has some  
> pitting or other blemish. If you see an area of bubbled paint on a cabinet, it  
> probably has filiform corrosion underneath that will spread and continue to  
> destroy the part if not repaired. ACF-50 is supposed to displace the moisture  
> in that area and seal it from further attack. You have to repeat the process  
> from time to time, depending on the environment the part is in (once a year or  
> so for the average light airplane). Unfortunately, the only way to get rid of  
> the filiform corrosion is to grind down the metal until you are below the area  
> that was corroded, then properly prepare and protect it with appropriate  
> primers and paint. If you just paint over the corrosion, it will be back  
> eventually. The paint shop recommended that for our airplane when we repainted  
> it a couple of years ago for a few spots. Otherwise they said the paint job  
> would be ruined in a few years from the corrosion underneath.  
>  
> Bill  
>  
> Bill Standerfer \* Hewlett-Packard Company  
> CFI-A, IA, ME \* Measurement Systems Division  
> bills@lvld.hp.com \* Loveland, CO 80539  
> Baron N222AB - KF0DJ - Pikes Peak 253 \* 970-679-2378  
>

Steve  
n41q@iglou.com

From boatanchors@theporch.com Fri Sep 22 00:34:00 1995  
From: "Robert M. Bratcher Jr." <bratcher@krypton.netropolis.net>  
Subject: What is this resister?  
Message-ID: <199509211730.RAA11685@krypton.netropolis.net>

>  
>Date: Thu, 21 Sep 95 7:41:22 EDT  
>From: mirage!pamars@uhura.neoucom.EDU (P.A.Marshall)  
>To: BoatAnchors@ThePorch.com (Boat Anchors)  
>Subject: What's a Bradleyohm?  
>Message-ID: <9509211141.AA05505@mirage>  
>  
>I just picked up a gizmo the likes of which I have not seen before.  
>It's a Bradleyohm "perfect resistor" made by Allen Bradley. It's  
>body is ceramic, about 7/8" wide by 1 7/8" long and 1" high, there  
>are metal covers on the top and bottom with a 1/4" shaft sticking  
>out of the top. By turning the shaft through multiable turns the  
>resistance goes from under 14K to over 20Meg, thats were my VOM  
>stops and I haven't felt the need to get out the megger. So I know  
>what it is, the real question is, What was it used for? A tuneable  
>grid leak?  
>  
>Al Marshall "Real Radios Glow in the Dark" almarshall@acm.org

I have the same question about an AcuOHM resister I have. Ceramic body,  
about 1.5 inches long. A wire on each end coming down plus a moveable part  
that goes over an exposed wirewound section. What was this resister used  
for? Never seen another like it before.

Robert M. Bratcher Jr.  
E-mail to:  
bratcher@netropolis.net  
Beam me up Scotty!

From boatanchors@theporch.com Fri Sep 22 00:34:00 1995  
From: HAMRLUND@aol.com  
Subject: Re: What is this resister?  
Message-ID: <950921200859\_25835757@emout05.mail.aol.com>

In a message dated 95-09-21 18:38:14 EDT, you write:

>Beam me up Scotty!

Can't right now Captun, the systems in overload & the whole ships gonna blow....

Please try your Call later.....

--- \*\*\*

----\*\*\*\* BLAMMMMM

From boatanchors@theporch.com Fri Sep 22 00:34:00 1995

From: Filip Gieszczykiewicz <filip@alpha.smi.med.pitt.edu>

Subject: Re: What is this resister? (fwd)

Message-ID: <Pine.SUN.3.90.950921234003.14145A-100000@alpha.smi.med.pitt.edu>

>>Beam me up Scotty!

>

>Can't right now Captun, the systems in overload & the whole

>ships gonna blow.... Please try your Call later.....

Very funny, Scotty... Now beam down my clothes...

From boatanchors@theporch.com Fri Sep 22 11:23:12 1995

From: pbock@melpar.esys.com (Paul H. Bock)

Subject: Wrinkle paint restoration/preservation-IMO

Message-ID: <9509221333.AA16492@syseng1.se.melpar.esys.com>

OK, BAers, as promised here are the brand names of the two leather care products I tried on some keys & bugs, as well as black wrinkle ARC-5 covers:

1) Eagle Ottawa "Tanner's Preserve" leather conditioning cream

2)"Tannery Car Care" leather and vinyl care (spray)

NOTE: #2 says "Not for use on hot surfaces" on the can.  
Didn't say anything about \*warm\* surfaces,  
however. ;-)

According to Mike Hanz, this type of preparation lasts far longer than spraying with WD-40. Mike has an \*extensive\* collection (I mean, multiple-multiple racks worth) of pristine, restored WWII radio & ECM equipment, so if he uses it it can't be all bad.....

Regarding Krylon: My only objection to this is that by using it you are, in essence, \*painting over\* the original paint.

The preparations above merely "coat and condition" the existing paint and can be removed with soap and water. Krylon is forever unless you strip back to bare metal, which means all the original paint is lost.

Randy Cole's suggestion (boiled linseed oil) may be the best I've seen listed so far. After all, the object is not to just "make the paint look new," but to actually \*RENEW\* the paint so it's more nearly \*like\* new. IMHO, of course, and everyone is free to disagree.

Everyone have a great weekend and maybe I'll get the 6V6 percolatin' on Sunday and actually \*work\* somebody! ;-)

73,

Paul, K4MSG

From boatanchors@theporch.com Fri Sep 22 18:44:44 1995  
From: Sandra L Knepper <slkst29+@pitt.edu>  
Subject: Re: Wrinkle paint restoration/preservation-IMO  
Message-ID: <Pine.3.89.9509221634.B20375-0100000@unixs5.cis.pitt.edu>

Do not use linseed oil on wrinkle. This is a wood preservative that will leave a film that will be tacky. I cannot for the life of me understand why this subject is being promulgated to the unsuspected who will take it as gospel. As I said before in my post, Howard, W3HM has used Krylon clear spray (matte finish) on all the 75A-4s that he restores. He does not use anything else. Try it and see how the wrinkle actually glissens. Enough said from me. Dave, W3BJZ

On Fri, 22 Sep 1995, Paul H. Bock wrote:

> OK, BAers, as promised here are the brand names of the two  
> leather care products I tried on some keys & bugs, as well as  
> black wrinkle ARC-5 covers:  
>  
> 1) Eagle Ottawa "Tanner's Preserve" leather conditioning cream  
>  
> 2)"Tannery Car Care" leather and vinyl care (spray)  
>  
> NOTE: #2 says "Not for use on hot surfaces" on the can.  
> Didn't say anything about \*warm\* surfaces,  
> however. ;-)  
>  
> According to Mike Hanz, this type of preparation lasts far

> longer than spraying with WD-40. Mike has an \*extensive\*  
> collection (I mean, multiple-multiple racks worth) of pristine,  
> restored WWII radio & ECM equipment, so if he uses it it can't be  
> all bad.....  
>  
> Regarding Krylon: My only objection to this is that by  
> using it you are, in essence, \*painting over\* the original paint.  
> The preparations above merely "coat and condition" the existing  
> paint and can be removed with soap and water. Krylon is forever  
> unless you strip back to bare metal, which means all the original  
> paint is lost.  
>  
> Randy Cole's suggestion (boiled linseed oil) may be the best  
> I've seen listed so far. After all, the object is not to just  
> "make the paint look new," but to actually \*RENEW\* the paint so  
> it's more nearly \*like\* new. IMHO, of course, and everyone is  
> free to disagree.  
>  
> Everyone have a great weekend and maybe I'll get the 6V6  
> percolatin' on Sunday and actually \*work\* somebody! ;-)  
>  
> 73,  
>  
> Paul, K4MSG  
>

From boatanchors@theporch.com Fri Sep 22 00:34:00 1995  
From: KS0F@aol.com  
Subject: WX  
Message-ID: <950921203621\_25860588@mail04.mail.aol.com>

Greetings All,

The WX here is not much like mid Sep. right now. Kinda dark,  
gray, cloudy, misty and 50'ish. Cold and damp.

Instead of kicking on the furnace I have a fair number of BA's  
powered up for the first time in a few months. Not only is the inside  
temp coming up a bit but the place is starting to smell real nice too!  
Internal warmth is up, kinda like coming home again.

73 de KS0F Mike  
Imperial, MO

USCG RM 63-67 Semper ZUT

P.S. Can't decide which glows best, HQ-110, HQ-150, SP-600,  
NC-300, 2B, 75S3 etc. etc. etc. Life is good.

From boatanchors@theporch.com Fri Sep 22 11:23:12 1995

From: Henry van Cleef <vancleef@bga.com>  
Subject: Re: WX  
Message-ID: <199509220720.CAA25658@zoom.bga.com>

As KS0F@aol.com said

>  
> Greetings All,  
>       The WX here is not much like mid Sep. right now. Kinda dark,  
> gray, cloudy, misty and 50'ish. Cold and damp.  
>  
> P.S. Can't decide which glows best, HQ-110, HQ-150, SP-600,  
> NC-300, 2B, 75S3 etc. etc. etc.       Life is good.  
>  
I just went outside to discover that it's chilly out there, but it's  
still toasty warm in here.

One Tek 545 that is misbehaving, running while I troubleshoot it.  
One Tek 310 being used to troubleshoot it.

I've never counted the toobs in a Tek scope, but between the two, I'd  
guess there are well over 100.

--

\*\*\*\*\*  
Hank van Cleef vancleef@bga.com vancleef@tmn.com  
\*\*\*\*\*

From boatanchors@theporch.com Fri Sep 22 00:34:00 1995  
From: jproc@worldlinux.com  
Subject: RE: WX (Filament glowing)  
Message-ID: <Chameleon.4.01.2.950921230440.jproc@>

>P.S. Can't decide which glows best, HQ-110, HQ-150, SP-600,  
>NC-300, 2B, 75S3 etc. etc. etc.       Life is good.

Mike,

I have I good idea for you. Why don't you take 10 octal sockets and mount  
them on a piece of varnished 1" x 2" pine. Wire up the filament pins from  
behind, plug in 10 of your most favourite tubes and attach the assembly to a  
suitably rated filament transformer. Finally, mount the assembly on a wall of  
suspend it from a ceiling. You could make several of these to give you the  
maximum light and heat effect. Don't tell your friends or neighbours about  
it or they will all want one :-):-)

Regards,

-----  
Jerry Proc VE3FAB  
E-mail: [jproc@worldlinx.com](mailto:jproc@worldlinx.com)  
Radio Restoration Volunteer  
HMCS Haida, Toronto Ontario  
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